Application No. 10/564,959 Attorney Docket No. 066079-5125

IN THE CLAIMS

1. (currently amended): A mixture of phthalocyanine dyes of Formula (1) and or salts thereof:

$$\mathsf{MPc} \underbrace{ \left(\mathsf{SO_3H} \right)_x}_{ \left(\mathsf{SO_2NR^1R^2} \right)_y} \\ \underbrace{ \left(\mathsf{SO_2NR^3LNR^4R^5} \right)_z}_{ \left(\mathsf{SO_2NR^3LNR^4R^5} \right)_z}$$

Formula (1)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula;

L is optionally substituted C_{1:20} alkylene, alkyenylene or alkynylene, optionally interrupted by -O-, -NH- or -S-;

R¹, R², R³ and R⁴ independently are H or optionally substituted C₁₋₄alkyl;

R⁵ is H or an optionally substituted hydrocarbyl; or

 R^4 and R^5 together with the nitrogen atom to which they are attached represent an optionally substituted 5- or 6-membered aliphatic or aromatic ring system;

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x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8:

the sum of (x+y+z) is 4;

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the substituents, represented by x, y and z, are attached only to a β -position on the phthalocyanine ring; and

the mixture of dyes of Formula (1) are obtainable by a process which comprises cyclisation of (3-sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the <u>optional</u> presence of a suitable nitrogen source (if-required); and in the presence of a copper or nickel salt, and a base followed by chlorination, amination/amidation.

(currently amended): A mixture of phthalocyanine dyes according to claim 1 of Formula
and or salts thereof:

Formula (2)

wherein:

M Cu or Ni:

Pc represents a phthalocyanine nucleus of formula;

 L^1 is optionally substituted $C_{1:8}$ alkylene optionally interrupted by $-O_-$, -NH- or -S-; R^1 , R^2 , R^3 and R^6 independently are H or optionally substituted $C_{1:4}$ alkyl; R^7 is H, optionally substituted aryl, optionally substituted alkyl or optionally heterocyclyl; or

 R^6 and R^7 together with the nitrogen atom to which they are attached represent an optionally substituted 5 or 6 membered aliphatic or aromatic ring:

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x is 0.1 to 3.8; y is 0.1 to 3.8;

z is 0.1 to 3.8:

the sum of (x+y+z) is 4;

the substituents, represented by x, y and z, are attached only to a β -position on the phthalocyanine ring; and .

the mixture of dyes of Formula (2) are obtainable by a process which comprises cyclisation of ß-sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the optional presence of a suitable nitrogen source (#Frequired); and in the optional presence of a copper or nickel salt, and a base such as 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) followed by chlorination, amination/amidation.

- 3. (original): A mixture of phthalocyanine dyes according to either claim 1 or claim 2 wherein M is Cu.
- (currently amended): A mixture of phthalocyanine dyes according to claim 1 or claim 2 of Formula (3) and or salts thereof:

Formula (3)

wherein:

Pc represents a phthalocyanine nucleus of formula;

$$\beta \qquad \qquad N \qquad \qquad N \qquad \qquad \beta \qquad$$

L2 is optionally substituted C1-4 alkylene;

R1, R2, R3 and R8 independently are H or methyl;

R⁹ is H or phenyl bearing at least one sulfo, carboxy or phosphato substituent and having further optional substituents; or

R⁸ and R⁹ together with the nitrogen atom to which they are attached represent an optionally substituted 5- or 6- membered aliphatic or aromatic ring;

x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8:

the sum of (x+v+z) is 4:

the substituents, represented by x, y and z, are attached only to a β -position on the phthalocyanine ring; and .

the mixture of dyes of Formula (3) obtainable by a process which comprises by cyclisation of ßsulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the <u>optional</u> presence of a suitable nitrogen source (if required), and in the <u>presence of</u> a copper or nickel salt, and a base followed by chlorination, amination/amidation.

- 5. (original): A mixture of phthalocyanine dyes according to claim 1 obtainable by a process which comprises cyclisation of 4-sulfo-phthalic acid in the presence of a nitrogen source, a copper or nickel salt and a base.
- 6. (previously presented): A mixture of phthalocyanine dyes according to claim 1 or claim 2 wherein x has a value of 0.5 to 3.0, y has a value of 0.5 to 3.0 and z has a value of 0.5 to 3.0.
- 7. (previously presented): A mixture of phthalocyanine dyes according to claim 1 or claim 2 free from fibre reactive groups.

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- 8. (previously presented): A composition comprising a mixture of phthalocyanine dyes according to claim 1 and a liquid medium.
- (original): A composition according to claim 8 wherein the liquid media comprises a mixture of water and organic solvent or organic solvent free from water.
- 10. (original): A composition according to either claim 8 or claim 9 wherein at least 70% by weight of the total amount of phthalocyanine due is of Formula (1).
- 11. (previously presented): A composition according to claim 8 or claim 9 wherein at least 95% by weight of the total amount of phthalocyanine dye is of Formula (1).
- 12. (previously presented): A composition that comprises:
 - (a) from 0.5 to 15 parts of a mixture of phthalocyanine dyes according to claim 1; and (b) from 99.5 to 85 parts of a liquid medium;

wherein all parts are by weight.

- 13. (original): A composition according to claim 12 that comprises:
 - (c) from 1 to 5 parts of a mixture of phthalocyanine dyes according to any one of claims 1 to 7; and
- (d) from 99 to 95 parts of a liquid medium;

wherein all parts are by weight.

- 14. (previously presented): A composition according to claim 8 or claim 9 which is an ink suitable for use in an ink jet printer.
- 15. 18. (canceled)
- 19. (previously presented): A mixture of phthalocyanine dyes of Formula (1) and salts thereof according to claim 1 wherein M is Cu, R^1 , R^2 and R^3 are hydrogen, L is $-CH_2CH_2$ and R^4 and R^5 together with the nitrogen atom complete a morpholine ring.
- 20. (previously presented): A mixture of phthalocyanine dyes as claimed in claim 1, 2 or 4 wherein the copper salt is CuCl₂ and the base is 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU).

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21. (currently amended): A process for preparing a mixture of phthalocyanine dyes of Formula (1) and or salts thereof which comprises cyclisation of ß-sulfo substituted phthalic acid, phthalonitrile, iminoisoindoline, phthalic anhydride, phthalimide or phthalamide in the optional presence of a suitable nitrogen source (#Frequired), and in the presence of a copper or nickel salt, and a base such as 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) followed by chlorination, amination/amidation.

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